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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/360,419	07/23/1999	AMIR DORON	HP10991005-1	4168

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EXAMINER

GENCO, BRIAN C

ART UNIT	PAPER NUMBER
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2615

DATE MAILED: 01/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/360,419

Applicant(s)

DORON, AMIR

Examiner

Brian C Genco

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 08/16/04
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 11-19 and 21-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11-19 and 21-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

Examination of the instant application is now being conducted by Brian Genco.

Upon further consideration of the references of record, Examiner is reinstating the rejection of Kato in view of Parulski. Bellow is a brief explanation of the references and why they are combinable together.

Kato teaches a continuous image taking mode and a still image taking mode (column 3, lines 36-38). In the continuous image taking mode, a series of still images are captured and coded using fast intra-frame coding and is later re-coded using inter-frame coding by software in the system control circuit since the re-compression needs less real-time urgency (e.g., column 3, lines 41-47, 54-61; column 8, lines 55-57). Examiner notes that this software in the system control circuit is firmware, namely it is software or instructions built-in to a computer chip or system software stored in a device's memory that controls the device. Examiner notes that Kato discloses that the system control circuit is for generally controlling the apparatus (column 3, lines 33-34).

Kato further discloses that the maximum pixel quantity and frame rate may not be required and low resolution images in a continuous image capture mode may be generated (column 4, lines 20-25).

Parulski teaches that it is desirable to generate motion images at LOW resolution and still images at high resolution such that they can be associated with high quality electronic still imaging systems (e.g., column 1, lines 33-38, 55-64), such as printers, image editors, and high resolution displays as is known in the art.

Therefore one of ordinary skill in the art at the time of the invention would have incorporate the image sensor of Parulski into Kato so as to enable a low resolution motion mode

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of operation and a high resolution still mode of operation in which images of higher quality may be obtained for association with high quality electronic still imaging systems such as printers, image editors, and high resolution displays.

In light of the new grounds of rejection described above and presented herein bellow Applicant's arguments as filed in the appeal brief and in the amendment filed August 16, 2004 are answered again herein bellow.

Applicant has argued that Kato is not concerned with generating a sequence of low resolution still image files for conversion into a motion video sequence.

In response, Examiner respectfully disagrees. Examiner notes column 3, lines 54-61 clearly describe to re-compress a series of still images that have been compressed by JPEG (intra-picture coding) into MPEG (inter-picture coding; column 7, lines 52-56).

Applicant continually argues that Parulski is no more pertinent to Applicant's claimed invention than the prior art illustrated in Figs. 3 and 4.

In response, Examiner respectfully disagrees. As later argued by Applicant on page 7 of the appeal brief, Parulski does not disclose any details for the processing electronics and recording unit. Parulski is most particularly concerned with the design of a CCD image sensor that can generate high resolution still images and low resolution motion images. As such, the processing architecture disclosed by Applicant in Figs. 3 and 4 is not applicable to the Parulski reference.

Applicant's arguments against the motivation to combine the Kato and Parulski references are moot in view of the new motivational statement presented.

In particular, Examiner notes that the motivation to combine Kato and Parulski has been modified and utilizes explicit teaching from Parulski, namely that it is desirable to capture high resolution still images for use with high quality still image electronics.

Applicant argues that there is no reasonable expectation of success in combining the Kato and Parulski references.

In response, Examiner respectfully disagrees. Examiner notes that Kato is concerned with compressing image files generated by a CCD image sensor. Parulski discloses an image sensor that advantageously generates high resolution still images and low resolution motion images. Examiner notes that changing the resolution of images input into the compression coding of Kato is well within the level of one skilled in the art. The resolution of an input image or series of images is irrelevant to whether or not it can be MPEG or JPEG compressed. As such, there is a clear expectation of success in combining the Kato and Parulski references.

Applicant argues that it would not have been obvious to have utilized the image sensor of Parulski in Kato's invention since Kato does not have the structures of the image sensor of Parulski.

In response, this argument is not deemed persuasive. It is obvious to utilize the image sensor of Parulski in Kato's invention as discussed above. The fact that Kato's image sensor

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doesn't have the same structure as Parulski's image sensor is why it is advantageous to utilize Parulski's image sensor, namely Parulski's image sensor allows for the generation of high resolution still images and low resolution motion images.

The Examiner previously relied upon the assertion that software, hardware, and firmware are all capable of implementing image processing methods. While Examiner agrees with this assertion Examiner notes that Kato discloses the use of firmware to implement the MPEG coding. In particular, Kato discloses inter-frame coding by software in the system control circuit since the re-compression needs less real-time urgency (e.g., column 3, lines 41-47, 54-61; column 8, lines 55-57). Examiner notes that this software in the system control circuit is firmware, namely it is software or instructions built-in to a computer chip or system software stored in a device's memory that controls the device. Examiner notes that Kato discloses that the system control circuit is for generally controlling the apparatus (column 3, lines 33-34). As such, one skilled in the art would clearly recognize that the software implemented in the system control circuit is firmware.

### ***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 11-19, 21-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over (USPN 6,148,031 to Kato) in view of (USPN 5,440,343 to Parulski et al).

Regarding claim 11, Kato discloses a method of generating images with a digital camera, comprising the steps of:

selectively generating a first sequence of still image files (e.g., a still image capture; column 3, lines 37-38) or a second sequence of still image files (e.g., continuous image taking; column 3, lines 36-38) and storing the image files in the memory (e.g., element 20) in accordance with a predetermined still image data compression standard (e.g., column 3, lines 41-47);

selectively retrieving the second sequence of still image files from the memory (e.g., column 3, lines 54-61);

converting the second sequence of still image files to a motion video sequence in accordance with a predetermined motion image data compression standard (e.g., column 3, lines, 54-61; column 7, lines 52-56) the conversion being performed with firmware (e.g., Examiner notes that this software in the system control circuit is firmware, namely it is software or instructions built-in to a computer chip or system software stored in a device's memory that controls the device. Examiner notes that Kato discloses that the system control circuit is for generally controlling the apparatus (column 3, lines 33-34). As such, one skilled in the art would clearly recognize that the software implemented in the system control circuit is firmware); and storing the motion video sequence (e.g., memory 22; column 3, lines 61-63).

Kato does not disclose that the first sequence of images are high resolution images and that the second set of images are low resolution images.

Parulski teaches that it is desirable to generate motion images at low resolution so as to provide for motion scenes at the standard thirty frames/second rate and still images at high

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resolution such that they can be associated with high quality electronic still imaging systems (e.g., column 1, lines 33-38, 55-64), such as printers, image editors, and high resolution displays as is known in the art.

Kato further discloses that the maximum pixel quantity and frame rate may not be required and low resolution images in a continuous image capture mode may be generated (column 4, lines 20-25).

Therefore one of ordinary skill in the art at the time of the invention would have incorporate the image sensor of Parulski into Kato so as to provide a low resolution motion mode of operation that captures motions scenes at the standard thirty frames/second rate and a high resolution still mode of operation in which images of higher quality may be obtained for association with high quality electronic still imaging systems such as printers, image editors, and high resolution displays. Examiner notes that in providing an image sensor that generates low resolution images for the motion capture mode, Parulski provides further means for meeting the object of Kato's invention, namely, "to provide an image processing apparatus and method, which reduce the quantity of coded data when image data is coded" (e.g., column 2, lines 37-39; Kato).

In regards to claim 12, note that Kato discloses using JPEG compression (e.g., column 3, lines, 54-61).

In regards to claim 13, note that Kato discloses using MPEG compression (e.g., column 7, lines 52-56).



In regards to claim 14, Kato teaches the use of JPEG (col. 3, lines 54-61) through the use of compression/decompression circuit 18. If a camera employs JPEG compression, it is an inherent feature of the camera to include a JPEG file format conversion component.

Regarding claim 15, Kato in view of Parulski does not disclose nor preclude embedding of JPEG files in corresponding EXIF files. Examiner notes that it is extremely well known in the art to utilize the EXIF file format so as to store metadata concerning photographing conditions and settings at the time of photography for use in later processing. Official notice is taken. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have embedded the JPEG files in the EXIF file format so as to store metadata concerning photographing conditions and settings at the time of photography for use in later processing.

In regards to claims 16 and 17, Kato discloses capturing the motion images at the standard 30 frames/sec (column 1, lines 52-55; column 4, lines 11-25).

In regards to claim 18, Parulski teaches the generation of a first sequence of high resolution still image files in response to each momentary actuation of the trigger switch, and the generation of a second sequence of low resolution still image files in response to the trigger switch being actuated and held for a predetermined duration longer than the momentary actuation (col. 3, lines 16-32).

In regards to claim 19 Kato discloses the ability to selectively display the recorded images (column 1, lines 15-22; column 5, lines 7-16).

In regards to claim 21, see Examiners notes on the rejection of claim 11. Note that Kato discloses an image sensor (CCD 10) for receiving light and generating output signals

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representative of an image (col. 3, lines 18-19) and the housing in which the sensor is mounted is inherently taught. Kato also teaches a manually actuatable trigger switch, which reads on a shutter button (col. 3, lines 35-38).

In regards to claim 22 see Examiners notes on the rejection of claims 13 and 14.

In regards to claim 23 see Examiners notes on the rejection of claim 18.

In regards to claim 24 see Examiners notes on the rejection of claim 19.

In regards to claim 25 Examiner notes that neither Kato nor Parulski disclose nor preclude the control circuit causes a markup file to be generated in response to user commands. Examiner notes that it is extremely well known in the art to utilize a markup file such as DPOF for providing printing and processing commands to a computer. Official notice is taken. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have utilized a markup file such as DPOF for providing printing and processing commands to a computer. Note Kato discloses printing frames of image data (column 5, lines 13-15).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian C. Genco who can be reached by phone at 703-305-7881 or by fax at 703-746-8325. The examiner can normally be reached on Monday thru Friday 8:30am to 4:30 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Christensen can be reached on 703-308-9644. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the customer service office whose telephone number is 703-308-4357.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Brian C Genco  
Examiner  
Art Unit 2615

January 21, 2005



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